Attachment A

New Jersey Clean Energy Program
2004 Program Descriptions,
Marketing Plans and Budgets

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Residential Gas & Electric HVAC Program

"Warm Advantage" & "Cool Advantage"

Program Description

In 2002 the Residential HVAC Electric and HVAC Gas programs were run as two separate programs. They were combined under the Residential Gas and Electric HVAC program in 2003.

The Residential Gas & Electric HVAC Program promotes energy efficient HVAC equipment and is designed to transform the market to one in which quality installations of high efficiency equipment are commonplace. For this program the market is considered transformed when rebates can be reduced or eliminated without a drop off in market penetration for a specific HVAC appliance or product.

The Program promotes both the sale of high efficiency equipment and improvements in sizing and installation practices that affect operating efficiency. Rebates under this program are available to promote the installation of qualified HVAC equipment (ENERGY STAR® rated gas furnaces, boilers and efficient gas water heaters; Energy-efficient central air conditioners and heat pumps) in existing residential homes (retrofit) and newly constructed homes located in Smart Growth Areas, which are defined as Planning Areas 1 and 2, and Designated Centers, as described on the Policy Map of the New Jersey State Development and Redevelopment Plan.

The Program also offers sales and technical training for HVAC technicians and contractors. The long-term goal is to transform the market to one in which properly designed and installed energy-efficient HVAC equipment becomes the market standard.

The Program must overcome several market barriers to achieve this goal. Key among these are: (1) split incentives (between builders and homebuyers and between owners and renters); (2) consumers' lack of information on the benefits (both energy and non-energy) of efficient equipment and quality installations; (3) lack of training for HVAC contractors on key installation issues and approaches to "selling" efficiency; (4) consumers' inability to differentiate between good work and poor work or between quality contractors/technicians and those less skilled and (5) higher costs than standard efficiency equipment related, in part, to lower sales volumes for energy-efficient equipment.

The program employs several key strategies to address these barriers:

- Financial incentives for the sale and purchase of ENERGY STAR-rated gas heating equipment and energy-efficient water heaters, declining over time as the installations of energy-efficient equipment become commonplace;
- Financial incentives for the sale or purchase and installation of high efficiency electric HVAC cooling equipment for which documentation of proper sizing and

installation is provided, declining over time as the installations of energy-efficient equipment become commonplace;
- Communicate with and educate HVAC distributors and contractors;
- ENERGY STAR sales training for contractors (i.e. how to sell efficiency);
- Technical training to HVAC contractors on how to install energy-efficient natural gas equipment and key elements of quality electrical HVAC installations; and
- Support of efforts to promote HVAC technician certification.

The New Jersey Clean Energy Program has supported efforts to upgrade federal appliance efficiency standards and state building codes. The BPU and the utilities have submitted letters in support of certain upgrades to efficiency standards and building codes. In addition, utility activities have included technical support, dissemination of information, sponsorship of conferences on codes and standards, tracking of activities and monitoring developments, and review and modification of program designs to integrate changes to the standards and codes. The Program Manager should continue to support these and similar activities as part of the New Jersey Clean Energy initiative.

Target Market/Eligibility

The program promotes the installation of new energy efficient central air conditioner(s) or heat pump(s), and gas furnaces, boilers and water heaters, in all residential dwellings into which new HVAC equipment is being installed. Rebates are available for the installation of qualified HVAC equipment in existing residential homes (retrofit) and newly constructed homes in Planning Areas 1 and 2 and Designated Centers as described on the New Jersey State Planning Map. Builders or buyers of new homes in the above identified approved planning areas may participate in either the Gas and/or Electric HVAC program or the New Jersey ENERGY STAR Homes program, but not both.

Program Offerings and Customer Incentives

The program promotes gas heating equipment meeting the ENERGY STAR efficiency standard (i.e., minimum AFUE of 90% for furnaces and 85% for boilers).

The program also promotes designated cooling equipment under two efficiency tiers for central air conditioners and air source heat pumps:

- Tier 1: SEER 13, EER 11 and (in the case of heat pumps) HSPF 8
- Tier 2: SEER 14, EER 12 and (in the case of heat pumps) HSPF 8.5

For cooling equipment under either tier, documentation of proper sizing and installation of qualifying high efficiency equipment must be submitted. In the case of units installed in new homes, this will mean (a) submission of Manual J sizing calculations, (b) documentation of proper charging, and (c) documentation that airflow is within the range recommended by manufacturers (maximum acceptable variation of plus or minus 10%). In the case of units installed in existing homes, documentation of proper sizing and installation will mean (a) submission of Manual J sizing calculations, (b) documentation of proper charging, and (c) documentation of proper airflow rates. In 2003 the program was modified in that HVAC firms that have at least 50% of their technicians holding

NATE certification will be required to submit only the Manual J sizing calculation and signed certification of proper charge and airflow according to equipment manufacturers specifications.

The program also promotes ground source heat pumps with an EER of at least 13 and gas water heaters with an Energy Factor of at least 0.62.

In 2002, based on their assessment of the market share for high efficiency central air conditioning and heat pumps, the utilities proposed reducing the incentives for these appliances. However, the Office of Clean Energy recommended that the proposed reductions in incentive levels be reviewed by the Clean Energy Council prior to becoming effective. The Clean Energy Council has reviewed the proposed reductions in incentive levels and recommended that they be implemented in 2004.

Based on the above, statewide incentives for high efficiency central air conditioners and air source heat pumps will be reduced in 2004 from the current levels as follows:

Minimum Efficiency Standards			Current Incentives		2004 Incentives	
SEER	EER	HSFP	Central A/C	Heat Pumps	Central A/C	Heat Pumps
13.00	11.00	8.00	$370	$460	$300	$400
14.00	12.00	8.50	$550	$710	$500	$650

Statewide incentives for ground source heat pumps will be reduced in 2004 from the current levels as follows:

Qualifying Equipment	Minimum Efficiency Standards	Current Incentive	2004 Incentive
Ground Source Heat Pump	13 EER	$580 per ton	$500 per ton

Statewide incentives for high efficiency gas equipment in 2004 will remain at current levels as follows:

Equipment	Minimum Efficiency	Rebate Level
Furnace	ENERGY STAR – i.e. 90% AFUE or greater	$300
Boiler	ENERGY STAR – i.e. 85% AFUE or greater	$300
Water Heater	0.62 Energy Factor or greater	$50

The incentives identified above may be modified with the approval of the Office of Clean Energy.

The 2003 program provided a rebate of $50 for ENERGY STAR rated programmable thermostats. The rebate is available to customers that qualify for a rebate under the Cool Advantage or Warm Advantage program and must be installed at the same time as the qualifying HVAC equipment. For 2004 the rebates under this program will be eliminated

and replaced with seasonal promotions under the ENERGY STAR II program that may include direct incentives.

At the customer's request, incentives may be payable to the consumer, the HVAC contractor or the builder. Incentive levels may be adjusted in future years for all eligible equipment based upon market assessments as program market barriers are overcome.

Program Delivery

The Residential HVAC program will be delivered by the State's seven natural gas and electric utilities until a new program manager is selected and a detailed transition plan is developed that sets out specific dates for the transfer of program functions to the new program managers. Rebates for electric equipment are processed by the electric utility serving the customer and rebates for gas equipment by the gas utility. The seven utilities coordinate program activities, offering identical rebates across the State and utilizing the same application forms. The new rebate levels will become effective on January 1, 2004 or as soon thereafter as feasible.

This program has been preliminarily identified as a program for which program management should be put out to bid. Upon selection of the new program manager in 2004, a detailed transition plan needs to be developed that sets out specific milestones and timelines for the transition of the program from management by the seven utilities to the new program manager. The transition plan needs to address the transition of the various functions including outreach, sales, marketing, delivery including processing of applications, reporting and responsibility for commitments made prior to the transition.

2004 Planned Program Implementation Activities

The Clean Energy Council recommended a number of program implementation activities for 2004. The following activities will be implemented by the utilities during the transition period:

- Support the training of HVAC technicians on ACCA Manual J load calculations (including use of software applications), proper refrigerant charging and airflow, technical material that must be understood to pass the North American Technician Excellence (NATE) certification tests, proper duct sealing, duct design using ACCA Manual D, ENERGY STAR sales techniques, and/or any other substantial form of training that is directly related to the promotion of energy efficiency and quality equipment installation.
- Support ENERGY STAR sales training to sales representatives of HVAC contractors.
- Hold at least one individual outreach meeting to explain the program offerings (e.g. rebates, sales and technical training) with the State's largest HVAC contractors.

Quality Control Provisions

Electric HVAC Quality Assurance

Documented policies and procedures provide proper guidelines to ensure consistency in the processing and quality control for all rebate program participants. All applications are reviewed as they are processed for verification of the documentation of qualifying equipment efficiency rating, proper sizing and proper installation. Each application and its information are entered into a database which allows checking for duplicate applicants through an equipment serial number comparison.

On an ongoing basis, 10% of all rebate applications are selected for a quality assurance review and inspection by a third party inspector contracted by each of the electric utilities. There are three inspection contractors servicing the state. Assurance includes a paperwork review of the application and a field inspection to verify qualifying equipment installations and proper installation. A field inspection report is prepared and submitted to the utility.

Gas HVAC Quality Assurance

Documented policies and procedures provide proper guidelines to ensure consistency in the processing and quality control for all rebate program participants. All applications are reviewed as they are processed for verification of proper documentation. Qualifying equipment efficiency levels is verified with the GAMA directory of gas heating equipment. Each application and its information are entered into a database, which allows checking for duplicate applicants through an equipment serial number comparison. There are no field inspections/verifications performed, which decreases the potential liability to the gas companies from an implied approval of the installation from a safety standpoint.

Program Budget

A detailed budget for this program for the first six months of 2004 is attached in Appendix B.

Program Goals and Minimum Requirements for Program Administration

Program goals and minimum requirements for program administration were not adopted for the 2003 programs. However, the November 1, 2002 filing of the Collaborative included proposed 2003 goals and minimum requirements for program administration that may prove informative in the development of 2004 goals and minimum requirements for program administration.

The following are the goals and minimum requirements for program administration that were proposed for 2003 but not adopted:

Proposed 2003 Goals

The Program has several inter-related goals that were proposed for the 2003 program year as follows:

Electric goals:

- Increase the number of central air conditioner and heat pump rebates statewide to 5% above 2002 year-end participation rates (despite modest reductions in rebate levels). The actual number of rebates for 2002 was 17,982 so the goal for 2003 would have been 18,881.
- Train at least 750 HVAC technicians on either Manual J load calculations (including use of software applications), proper charging and airflow, technical material that must be understood to pass the North American Technical Excellence (NATE) certification test, duct sealing, duct design using ACCA Manual D, ENERGY STAR sales techniques, and/or any other substantial form of training that is directly related to program goals. Any training conducted using essentially the same curricula provided by the program, including training provided by industry allies, shall count towards the goal.
- Add 500 New Jersey HVAC technicians to the list of those who are certified by NATE.
- Increase to 15% the fraction of 2003 central air conditioner buyers who, unprompted, define efficient equipment as either SEER 13, SEER 14, or "ENERGY STAR-rated" up from 5% in the baseline study.

Gas goals:

- Increase the number of ENERGY STAR qualified furnace and boilers rebated statewide to 7% above 2002 year end participation rates. The actual number of rebates for 2002 was 9,010 so the goal for 2003 would have been 9,641.
- Increase the statewide market share for ENERGY STAR qualified furnaces to 35%.
- Provide ENERGY STAR sales training to at least 150 sale representatives of HVAC contractors.
- Hold at least one individual outreach meeting to explain and promote program offerings (e.g. rebates, sales training, other training) with at least 200 of the 400 largest HVAC contractors.
- Increase to 15% the fraction of recent furnace buyers who are aware of the availability of high efficiency equipment, and identify either 90% AFUE, 90% efficiency or ENERGY STAR-rated as the standard for high efficiency.

Proposed Minimum Requirements for Program Administration

The following are the minimum requirements for program administration that were proposed for 2003:

- Collectively (all seven utilities) implement all elements of the program in a

consistent manner across the entire state.
- ? Collectively employ best efforts to implement planned program activities in a timely manner.
- ? Collectively train at least 500 HVAC technicians (electric) and 100 HVAC technicians (gas) in the areas identified above.
- ? Individually (each utility) achieve rebate participation numbers equal to 66% of the program goal. (Since the program goals were never approved these utility specific goals were not calculated).

2004 Goals and Objectives

As stated above, the proposed 2003 goals and minimum requirements for program administration were not approved. Also, marketing plans that were developed to support the achievement of these goals were suspended in 2003 while the Board considered changes to the administrative structure of the programs. Without marketing efforts to support the goals the utilities are in a reactive mode with regard to the number of applications processed, that is, they have minimal ability to stimulate additional participation in the program.

Further, it is anticipated that in 2004 the program management function will be transferred from the utilities to a program manager selected through a competitive process. The timing of the transfer to a new program manager is uncertain at this time.

The goals related to the number of rebates processed tend to be seasonal in nature with many applications for cooling equipment rebates received after the summer months and many applications for heating equipment received after the winter months. The number of rebates processed also tends to be impacted by factors outside of the control of the utilities such as general market conditions and weather.

The following goals for the first six months of 2004 were developed based upon consideration of these factors and upon actual program participation levels in 2003:

Electric goals:

- ? Process 6700 central air conditioner and heat pump rebates statewide.
- ? Train at least 600 HVAC technicians on either Manual J load calculations (including use of software applications), proper charging and airflow, technical material that must be understood to pass the North American Technical Excellence (NATE) certification test, duct sealing, duct design using ACCA Manual D, ENERGY STAR sales techniques, and/or any other substantial form of training that is directly related to program goals. Any training conducted using essentially the same curricula provided by the program, including training provided by industry allies, shall count towards the goal.
- ? Add 200 New Jersey HVAC technicians to the list of those who are certified by NATE.

Gas goals:

- Process 4200 ENERGY STAR qualified furnace and boilers rebates statewide.
- Provide ENERGY STAR sales training to at least 75 sale representatives of HVAC contractors.
- Hold at least one individual outreach meeting to explain and promote program offerings (e.g. rebates, sales training, other training) with at least 100 of the 400 largest HVAC contractors.

Minimum Requirements for Program Management

The following are the minimum requirements for program management:

- Collectively (all seven utilities) implement all elements of the program in a consistent manner across the entire state.
- Collectively employ best efforts to implement planned program activities in a timely manner.

Performance Indicators

The following criteria will be used to judge performance based on program tracking and evaluation results:

- Energy Savings
- Number of rebates processed
- Number of HVAC technicians/contractors that have received training in key elements of quality installations (e.g. sizing, charging, airflow, duct design), ENERGY STAR sales or energy-efficient gas equipment installation.
- Number of NATE certified HVAC technicians/contractors.

Residential New Construction Program

"New Jersey ENERGY STAR Homes Program"

Program Description

The Residential New Construction Program is designed to increase the efficiency and environmental performance of residential new construction in the State.

The "New Jersey ENERGY STAR Homes Program" has the long-term goal of transforming the market to one in which all new homes are built at least as efficiently as the current EPA ENERGY STAR homes standard. There are a number of market barriers to efficiency investments in new construction. Key among these are: (1) split incentives (i.e. builders who make design decisions will not pay the additional costs associated with those decisions); (2) lack of information on the benefits of efficiency and environmental performance (on the part of consumers, builders, lenders, appraisers, realtors and others); (3) limited technical skills to address key elements of efficiency; and (4) inability of consumers, lenders, appraisers and others to differentiate between efficient and standard homes. This program plan employs several key strategies to overcome these barriers:

- Incentives to builders to construct homes to program standards.
- Marketing assistance to builders of ENERGY STAR rated homes.
- Technical assistance to builders and their subcontractors.
- Home energy ratings and ENERGY STAR certification to qualified homes.
- Support to the Department of Community Affairs; RESNET; and US EPA to foster the development of market-based mechanisms to facilitate market transformation, including a uniform statewide energy rating system, and accreditation of raters through the establishment of a NJ Home Energy Raters Alliance.
- Technical support/training on residential energy code updates and implementation.

Target Market/Eligibility

This program promotes the constructions of energy efficient new homes. Consistent with Governor McGreevey's recently announced policy initiative to support development and redevelopment in Smart Growth areas and not subsidize growth outside of these areas, incentives for new construction, including those offered under this program, will be directed to buildings constructed in areas designated for growth in the State Development and Redevelopment Plan. This program was modified in 2003 to incorporate the changes necessary to implement this new policy initiative.

Any new home or existing home undergoing substantial (gut) renovation or remodeling in a State designated "Smart Growth" area (defined as Planning Areas I and II and the Designated Centers using the "Policy Map of the New Jersey State Development and

Redevelopment Plan"), is eligible to participate in this program if it has gas heat, electric heat and/or central air conditioning. Both single family and multi-family buildings are eligible as long as they are individually metered (i.e. non-commercial accounts). Customers may choose to participate in either the Residential New Construction Program or the Residential Gas and Electric HVAC program, but not both.

In 2003, the program had the following requirements: a home must: (1) meet a performance standard equal to the EPA's ENERGY STAR Homes standard (a HERS score of 86 or better); (2) document proper HVAC equipment sizing and installation; (3) fully seal all duct system joints and seams; and (4) properly air seal the home for reduced air leakage. The performance standard can be met through any combination of insulation upgrades, efficient windows, air sealing, efficient HVAC equipment, and/or duct sealing. A home energy rating (HERS) score of 86 points will be required to demonstrate that a combination of such measures has resulted in attainment of the standard. In 2004, three additional requirements will be added: (1) fully duct all HVAC supplies and returns, and (2) install mechanical ventilation; and (3) install a minimum of three ENERGY STAR hard-wired light fixtures.

Program Offerings and Customer Incentives

Incentives reflect changing baselines, market barriers to efficiency improvements and incremental costs of efficiency improvements. For 2004, they are designed to cover approximately 100% of the incremental cost of efficiency upgrades for homes with electric heat or gas heat and approximately 50% of incremental cost for homes with central air conditioning and oil or propane heat.

The program offers three different incentives. First, and most important, are incentives for building a home to the program's core efficiency standard for building shell and HVAC equipment. The program standard is a Home Energy Rating System (HERS) score of at least 86.0 points, plus certain prescriptive requirements for 1) central air conditioners and/or heat pumps (where applicable); 2) ducts (where applicable); 3) house air sealing, 4) ENERGY STAR lighting, and for 2004, 5) mechanical ventilation. The core incentives vary by dwelling type. The incentives for 2004 will be modified from the current levels as follows:

Table 1: Core Incentive

	Current Incentives	2004 Incentives
Maximum Core Incentive	No Maximum	$3,100
Dwelling Type		
Single Family	$700 + $.60/sq. ft.	$700 + $.60/sq. ft.
Multiple Single Family ("Townhouse")	$200 + $.60/sq. ft.	$200 + $.60/sq. ft.
Multiple-Family Building ("Multi-Family")	$50 per dwelling unit + $.60/sq. ft.	$50 per dwelling unit + $.60/sq. ft.

The HVAC equipment incentives are the same as those offered under the Residential Electric and Gas HVAC Program. Some of the HVAC equipment incentives will be reduced in 2004 from the current levels as follows:

Table 2: HVAC Equipment Incentives

Equipment Type	Minimum Efficiency Standards	Current Incentives*	2004 Incentives
Gas Boiler	ENERGY STAR – 85% AFUE	$300	$300
Gas Furnace	ENERGY STAR – 90% AFUE	$300	$300
Central A/C	13 SEER, 11 EER	$370	$300
Central A/C	14 SEER, 12 EER	$550	$500
Heat Pump	13 SEER, 11 EER, 8.0 HSPF	$460	$400
Heat Pump	14 SEER, 12 EER, 8.5 HSPF	$710	$650
Ground Source Heat Pump	13 EER	$580	$500 per ton

*Per installed unit.

Homes meeting the program standards are also eligible for supplemental incentives for high efficiency lighting fixtures and washing machines. The 2004 incentives for these measures will remain at current levels as follows:

Table 3: Supplemental Incentives

Measure	Efficiency Standard	Incentive Level
Washing Machine	ENERGY STAR model	$175
Light Fixtures	Unlimited quantities of ENERGY STAR light fixtures in high-use locations (not closets, garages, unfinished basements or other locations where lights are typically on for less than 2 hours/day and over and above the mandatory three fixtures)	$30 for recessed cans $20 for all others

The incentives identified above may be modified with the approval of the Office of Clean Energy.

In addition, in 2004 the utilities will implement the following program activities:

- Continue to train builders, subcontractors and architects on program elements and aspects that will improve the energy efficiency, environmental performance and sales of homes they design and build.
- Support efforts that would allow the ENERGY STAR Homes Program to use a competitive market-based HERS delivery infrastructure statewide, while still maintaining program standards, consistency and quality assurance.
- Develop a sampling protocol in order to reduce the number of on-site inspections, which currently stands at 100%.

The 2004 program approved by the Clean Energy Council included several new program elements to be managed by DCA. The Office of Clean Energy will be responsible for developing these new initiatives.

Program Delivery

The Residential New Construction program will be delivered by the State's seven natural gas and electric utilities until a new program manager is selected and a detailed transition plan is developed that sets out specific dates for the transfer of program functions to the new program managers. Rebates for electric equipment are processed by the electric utility serving the customer and rebates for gas equipment by the gas utility. The seven utilities coordinate program activities, offering identical rebates across the State and utilizing the same application forms. The new rebate levels and program requirements will become effective on January 1, 2004 or as soon thereafter as feasible.

This program has been preliminarily identified as a program for which program management should be put out to bid. Upon selection of the new program manager in 2004, a detailed transition plan needs to be developed that sets out specific milestones and timelines for the transition of the program from management by the seven utilities to the new program manager. The transition plan needs to address the transition of the various functions including outreach, sales, marketing, delivery including processing of applications, reporting and responsibility for commitments made prior to the transition.

Quality Control Provisions

The Residential New Construction (RNC) Program has two aspects of quality control associated with it. The first is the quality control that takes place to ensure that participating homes meet all program guidelines, including the threshold criteria of 86 points on the Home Energy Rating System (HERS) scale. The second is the quality control, which takes place "internally" to ensure that the program implementation contractor is performing its tasks according to utility guidelines.

The RNC program utilizes both on-site inspections and in-house technical review to ensure that the homes participating in the program meet all program requirements.

Quality control in the field includes, at a minimum, a mandatory pre-drywall inspection and a final inspection with testing. Re-inspections and additional mid-construction inspections are performed when necessary based on initial results. The final inspection includes testing with blower door and "duct blaster" equipment, among other procedures.

In-house technical review occurs at both the front and back ends of the process. Builder plans are analyzed as proposed prior to construction to determine necessary upgrades and final results are analyzed after construction based on final inspection and testing to generate the HERS rating and confirm qualification for certification.

Internal quality control consists of random site-visit inspections to homes by an independent inspector contracted directly for this purpose by the utility, and not affiliated with the program implementation contractors. The inspector receives site information

that is "blind" with respect to equipment and square footage. The information collected by the inspector can then be compared with information submitted by the builder and/or implementation contractor and any discrepancies are identified and resolved.

Finally, relevant data is captured by the program's database which includes error checking on critical site and rebate information.

Program Budget

A detailed budget for this program for the first six months of 2004 is attached in Appendix B.

Program Goals and Minimum Requirements for Program Administration

Program goals and minimum requirements for program administration were not adopted for the 2003 programs. However, the November 1, 2002 filing of the Collaborative included proposed 2003 goals and minimum requirements for program administration that may prove informative in the development of 2004 goals and minimum requirements for program administration.

The following are the goals and minimum requirements for program administration that were proposed for 2003 but not adopted:

Proposed 2003 Goals
The Residential New Construction Program had several inter-related goals proposed for the 2003 program year as follows:

Enroll at least 20% of the total New Jersey permits issued for residential new construction dwelling units (single family, townhouse and multi-family) with commitments[1] to build to the ENERGY STAR Homes program's efficiency standards when the units are constructed[2]:

- Certify at least 3,000 ENERGY STAR Homes by December 31, 2003.
- Train[3] at least 325 builders, subcontractors and architects on program elements and aspects that will improve the energy efficiency, performance and sales of homes they design and build.

[1] "Commitment" means a signed agreement by the program participant to construct and complete each enrolled dwelling unit to the program standards.
[2] Program goals include homes served by both gas and electric companies. A home served by both counts towards each company's minimum requirements. However, it counts as only one "enrollment" towards the statewide goal.
[3] Training shall include classroom, small group, one-on-one, on-site and internet based or other computer based education. Builder "kick-off" meetings do not count towards training goals. Training topic areas include building science and energy efficiency (e.g. duct design, duct sealing, HVAC charge and air flow, HVAC sizing, air sealing, insulation, building envelope, lighting, appliances, etc.) and ENERGY STAR Homes marketing)

Proposed 2003 Minimum Requirements for Program Administration
The following are the minimum requirements for program administration that were proposed for 2003:

- ? Collectively (all seven utilities) implement all elements of the program in a consistent manner across the state.
- ? Collectively employ best efforts to implement planned program activities in a timely manner.

Individually achieve at least 60% of the following enrollment participant goal numbers for a projected[4] total of 2,760 committed homes (i.e. 60% of the statewide goal of 20% of residential permits issued for 2003). Since the 2003 goals were never approved, these minimum requirements were not calculated.

2004 Goals and Objectives

As stated above, the proposed 2003 goals and minimum requirements for program administration were not approved. Also, marketing plans that were developed to support the achievement of these goals were suspended in 2003 while the Board considered changes to the administrative structure of the programs. Without marketing efforts to support the goals the utilities are in a reactive mode with regard to the number of applications processed, that is, they have minimal ability to stimulate additional participation in the program.

Further, it is anticipated that in 2004 the program management function will be transferred from the utilities to a program manager selected through a competitive process. The timing of the transfer to a new program manager is uncertain at this time.

The following goals for the first six months of 2004 were developed based upon consideration of these factors and upon actual program participation levels in 2003:

Enroll at least 20% of the total New Jersey permits issued for residential new construction dwelling units (single family, townhouse and multi-family) with commitments to build to the ENERGY STAR Homes program's efficiency standards when the units are constructed:

- ? Certify at least 2887 ENERGY STAR Homes.
- ? Train at least 150 builders, subcontractors and architects on program elements and aspects that will improve the energy efficiency, performance and sales of homes they design and build.

Minimum Requirements for Program Management

- ? Collectively (all seven utilities) implement all elements of the program in a consistent manner across the state.

[4] Projected residential permits for 2003 are 23,000. The 20% commitments represent 4,600 housing units. The actual commitment goal will be tracked and adjusted monthly as permit data from DCA is released.

- Collectively employ best efforts to implement planned program activities in a timely manner.

Performance Indicators

The following criteria may be used to judge performance based on program tracking and evaluation results:

- Energy Savings
- Market share for ENERGY STAR homes;
- Leveraging trade ally relationships;
- Increasing availability/use of home energy ratings.

Residential ENERGY STAR Products

"ENERGY STAR II Program"

Program Description

The Residential ENERGY STAR Products Program promotes the sale and purchase of ENERGY STAR rated and labeled residential products including lighting, appliances and windows. The program was modified substantially in 2003 with further modifications proposed for 2004 as discussed below.

The long-term goal of the program is to transform the market into one in which ENERGY STAR residential products become standard. The program employs several key strategies to accomplish this goal, including:

- Educating consumers on their energy usage and the role that energy efficiency plays in reducing their overall residence's energy consumption.
- Providing a retail infrastructure whereby energy efficient products becomes the norm in a consumers buy decision.
- Marketing and training support for retailers, manufacturers and contractors selling ENERGY STAR products.
- Supporting the development of State appliance standards (e.g. torchieres, & ceiling fans), minimum federal appliance efficiency standards and ENERGY STAR appliance specifications, as appropriate.
- Leveraging national programs, promotions, marketing materials, and advertising.
- Targeted rebates or other incentives to reduce first cost barriers of ENERGY STAR lighting, appliances, windows and thermostats.

In 2001, the program was run as three separate programs: lighting, appliances and windows. In 2002, the three programs were combined into one ENERGY STAR Products program.

Also, in 2001 and 2002 the program recruited retailers, manufacturers and contractors selling ENERGY STAR products into the program. The program included marketing and training support for these entities as well as targeted promotions of ENERGY STAR products. In 2003, the program was placed in "maintenance mode" meaning that the program did not expand its marketing and recruitment activities beyond those already committed, pending review of incorporating a broad based consumer element into the program and review of the program by the Clean Energy Council.

In 2003, two broad based consumer initiatives were added to the program; rebates for ENERGY STAR room air conditioners and incentives for ENERGY STAR lighting. The

program was also reviewed by the Clean Energy Council, which recommended that the "maintenance mode" restrictions be eliminated allowing the program to recruit additional retailers.

For 2004, the ENERGY STAR II Program combines the past experiences and successes of the Residential Retrofit and Residential ENERGY STAR Products programs to offer interested consumers the resources enabling them to understand and act to reduce their energy use.

The program seeks to accomplish this in several ways:

It will provide energy audit software tools to help consumers assess both the efficiency of their energy use and opportunities for improving efficiency. These tools will be available through the Internet and via mail (in response to phone or mail inquiries). Accommodations will be made for those consumers who are not able to use computer-based tools and the program will offer consumers a toll free telephone number that will provide answers to their questions on energy efficiency issues, update them on specific ENERGY STAR II special promotions, and refer them to other relevant efficiency programs.

The program will also establish new and maintain existing relationships with manufactures and retailers (which were established by the former ENERGY STAR Products Program) by providing marketing and training support. The program will leverage these relationship and offer special promotions, whereby retailers will sell and consumers may purchase ENERGY STAR labeled residential lighting, appliance, window and programmable thermostat products at reduced retail prices. This program will be the delivery mechanism for implementing the components of the program that promote ENERGY STAR compact fluorescent lighting and ENERGY STAR room air conditioners and other initiatives if appropriately authorized by the BPU or BPU Staff.

Target Market/Eligibility

The program will offer marketing and training support to new retailers, manufacturers, and contractors while continuing to maintain those as enrolled in the former ENERGY STAR Products Program.

The program will provide targeted rebates/incentives to consumers for the purchase of ENERGY STAR labeled lighting (CFL's, Indoor-Outdoor fixtures, portables, ceiling fans), appliances (refrigerators, clothes washers, dishwashers, room air conditioners), windows, and programmable thermostats, and any other initiatives appropriately authorized by the BPU or BPU Staff.

Program Offerings and Customer Incentives

Home Energy Efficiency Audit Software
Energy audit software as described above will be available through the Internet or will be provided to customers through the mail free of charge.

Appliances
The primary focus of the program is on four ENERGY STAR labeled appliances; refrigerators, clothes washers, dishwashers, and room air conditioners.

The program will offer special promotions to coincide with and leverage the national EPA/DOE ENERGY STAR efforts. As such, a room air conditioner rebate program will be targeted for the cooling pre-season, to start in April of 2004. Promotions for clothes washers, dishwashers and refrigerators will align with the EPA/DOE national appliance promotion. In order to create the incentive for consumers to choose ENERGY STAR labeled products, rebate levels will be set to offset the cost difference between standard and ENERGY STAR labeled products. All promotions will attempt to leverage manufacturer and retailer resources (matching rebates, co-op advertising, point of purchase materials, etc.) in order to bring more benefits to the consumer.

Lighting

The program supports four ENERGY STAR labeled lighting technologies -- screw-based bulbs, hardwired indoor/outdoor fixtures, portable fixtures and ceiling fans. For ENERGY STAR ceiling fans, qualified products are those fans with lighting, or separately packaged lighting kits for ceiling fans. The program will continue to offer special promotions for the purchase of ENERGY STAR labeled lighting that will coincide with the EPA's National Change A Light campaign. Solicitations with market actors such as manufacturers and retailers will continue to focus on reducing the cost of ENERGY STAR labeled lighting products, promoting co-op advertising opportunities, while providing education and point of purchase materials for consumers.

Windows

The program promotes windows meeting the ENERGY STAR efficiency standard (i.e. minimum U-value of 0.40 and maximum solar heat gain coefficient (SHGC) of 0.55 for locations within the central region of the United States. Promotions may be designed to increase the awareness of ENERGY STAR labeled windows with consumers.

Programmable Thermostats

ENERGY STAR labeled thermostats create energy savings by allowing consumers to set back (winter) and set up (summer) their temperature set points for times when their residences require less heating/cooling. Such times include those when the residence may be unoccupied (work) or when the occupants require less heat/cooling (night-time, while sleeping). ENERGY STAR labeled thermostats provide features whereby temperature requirements can be set/customized for several times per day, days per week and weekend thus resulting in energy savings.

Preliminary market feedback indicates that the prices for programmable thermostats have dropped to the point that the incremental cost compared to a standard thermostat is minimal. Therefore, the Clean Energy Council Residential Subcommittee recommended that the rebates currently offered under the HVAC program be eliminated in 2004 and replaced with special promotions under the ENERGY STAR program.

The program will offer special promotions to coincide with the pre-cooling and pre heating seasons (April, October timeframes) in order to create the incentive for consumers to purchase these energy saving devices. These promotions will be delivered through retail and wholesale channels, will provide incentives whereby the initial cost of the programmable thermostat is reduced (incentives up to $25 depending on retail purchase price), and will be structured to leverage the resources of the

manufacturers/retailers for items such as additional rebates, co-op advertising, point of purchase and education materials. This program offering will replace the incentives for programmable thermostats that will be eliminated from the residential HVAC program.

In addition, in 2004 the utilities will implement the following program activities:

? Continue to leverage and build upon the EPA/DOE's national Appliance promotion by offering special promotions for room air conditioner, clothes washers, dishwashers and refrigerators.

? Continue to leverage and build upon the EPA/DOE's national Change A Light promotion by offering special promotions for CFL's, lighting fixtures, portables and ceiling fans.

? Initiate a programmable thermostat special promotion to create incentives for consumers to install programmable thermostats.

? Continue to monitor the development of new window ENERGY STAR labeled criteria and devise special promotions to educate and provide cost reduction for the purchase of ENERGY STAR labeled windows.

? Continue to support the development and implementation of any new ENERGY STAR product rebate initiatives.

? Enroll new and continue to support/maintain the existing base of retail partners with promotions, point of purchase collaterals, and sales associate training.

Program Delivery

The ENERGY STAR II program will be delivered by the State's seven natural gas and electric utilities until a new program manager is selected and a detailed transition plan is developed that sets out specific dates for the transfer of program functions to the new program managers. The program will be offered on a consistent program design and implementation basis to ensure consistency across the state. Special emphasis will be placed to ensure that consistent retailer support activities continue to be provided statewide.

This program has been preliminarily identified as a program for which program management should be put out to bid. Upon selection of the new program manager in 2004, a detailed transition plan needs to be developed that sets out specific milestones and timelines for the transition of the program from management by the seven utilities to the new program manager. The transition plan needs to address the transition of the various functions including outreach, sales, marketing, delivery including processing of applications, reporting and responsibility for commitments made prior to the transition.

Quality Control Provisions

For promotions featuring customer rebates, documented policies and procedures provide proper guidelines to ensure consistency in the processing and quality control for all rebate program participants. All applications are reviewed as they are processed for verification of the documentation that the equipment is a qualified ENERGY STAR listed product.

Each application and its information are entered into a database which allows checking for duplicate applicants through an equipment serial number comparison.

On an ongoing basis, 5-10% of all rebate applications are selected for a quality assurance review and follow-up telephone customer survey to verify the information on the application and to confirm that the rebate was received.

Lighting

> For coop marketing promotions with manufacturers, distributors, and retailers payments are made to the coop participant when the required proof of performance is received, which may include copies of invoices, packing slips, photos or samples of product bearing buy-down program identification, copies of delivery receipts, etc.

In addition to the above, the ENERGY STAR II program field representatives visit the participating store fronts to verify that ENERGY STAR labeled products have been received and have been displayed properly according to program requirements. If necessary they will unpack the products, put them on display and place the required program materials. Performance reports are provided to the program managers to assist in developing future promotions and selecting the most effective coop marketing proposals.

Program Budget

A detailed budget for this program for the first six months of 2004 is attached in Appendix B.

Program Goals and Minimum Requirements for Program Administration

Program goals and minimum requirements for program administration were not adopted for the 2003 programs. However, the November 1, 2002 filing of the Collaborative included proposed 2003 goals and minimum requirements for program administration that may prove informative in the development of 2004 goals and minimum requirements for program administration.

The following are the goals and minimum requirements for program administration that were proposed for 2003 but not adopted:

Proposed 2003 Goals

The ENERGY STAR Products program had several common, inter-related goals proposed for the 2003 program year as follows:

? Maintain retailer ENERGY STAR partner commitments. This includes placing marketing materials in the stores that promote ENERGY STAR products, training sales associates in the benefits of and how to sell ENERGY STAR products, and continuing to sponsor co-op advertising and product promotions that at least 15%

of enlisted program retailers of each of the three product categories participate in by year-end.

- Develop a broad based consumer promotion designed to have the most benefit to NJ consumers with input from the BPU, the Ratepayer Advocate and industry. The ENERGY STAR products to be promoted (e.g. CFLs, clothes washers) will be selected in consultation with the BPU, the Ratepayer Advocate and industry experts.
- Complete all planned 2003 evaluation activities identified in the Evaluation plan by revised dates. At minimum these will include the process evaluation and market progress reports that were started in March of 2002 and placed on hold in July 2002 pending BPU review. (note: the utilities did not receive authorization to continue the evaluation efforts in 2003)
- Develop and implement a methodology for tracking market share of Energy star lighting, windows, and appliances sold to consumers in New Jersey.

Proposed Minimum Requirements for Program Administration

- Collectively (all four electric utilities) implement the program in a consistent manner across the entire state.
- Collectively employ best efforts to implement planned program activities in a timely manner
- Collectively complete three of the four program goals listed above.

2004 Goals and Objectives

As stated above, the proposed 2003 goals and minimum requirements for program administration were not approved. Also, marketing plans that were developed to support the achievement of these goals were suspended in 2003 while the Board considered changes to the administrative structure of the programs. Without marketing efforts to support the goals the utilities are in a reactive mode with regard to the number of applications processed, that is, they have minimal ability to stimulate additional participation in the program. This program was also placed in the maintenance mode meaning that the utilities were not permitted to recruit new participants into the program.

Further, it is anticipated that in 2004 the program management function will be transferred from the utilities to a program manager selected through a competitive process. The timing of the transfer to a new program manager is uncertain at this time.

The following goals for the first six months of 2004 were developed based upon consideration of these factors and upon actual program participation levels in 2003:

The ENERGY STAR Products program has several common, inter-related goals as follows:

- Maintain retailer ENERGY STAR partner commitments. This includes placing marketing materials in the stores that promote ENERGY STAR products, training sales associates in the benefits of and how to sell ENERGY STAR products, and continuing to sponsor co-op advertising and product promotions that at least 15% of enlisted program retailers participate in by year-end (Note: there are no promotions planned for windows in the 1st six months of 2004).
- Develop a broad based consumer promotion designed to have the most benefit to NJ consumers with input from the BPU, the Ratepayer Advocate and industry. The ENERGY STAR products to be promoted (e.g. CFLs, clothes washers) will be selected in consultation with the BPU, the Ratepayer Advocate and industry experts.

Minimum Requirements for Program Management

- Collectively implement the program in a consistent manner across the entire state.
- Collectively employ best efforts to implement planned program activities in a timely manner

Performance Indicators

- Energy Savings
- Number of consumers served by the Home Energy Efficiency software
- Number of ENERGY STAR products sold as a direct result of the program (Note: there is no standard national measurement for market share. D&R tries to track big box shipments, but is not able to collect data for the entire market nor are they able to differentiate transport shipments from destination shipments. NJ is a transit state for cargo.)
- Feedback from implementation contractor follow-up calls with participating retailers
- Maintain retailer ENERGY STAR partner commitments

Residential Low Income Program

"New Jersey Comfort Partners "

Program Description

The Residential Low Income Program ("Program"), offered by the New Jersey Clean Energy Program, is designed to improve energy affordability for low-income households. To achieve this objective, it must overcome several market barriers. Key among these are: (1) lack of information on either how to improve efficiency or the benefits of efficiency; (2) low income households do not have the capital necessary to upgrade efficiency or even, in many cases, keep up with regular bills; (3) low income households are the least likely target of market-based residential service providers due to perceptions of less capital, credit risk and/or high transaction costs; and (4) split incentives between renters and landlords. The Program addresses these barriers through the following objectives:

- Serving the maximum number of households utilizing the available budget.
- Direct installation of all cost-effective energy efficiency measures (addressing all fuels with a comprehensive approach).
- Comprehensive, personalized individual energy education and counseling.
- Maximizing total cost-effective energy savings through the use of measure-specific protocols.
- Coordination with other service providers and agencies.
- Leveraging of funds.
- Arrearage reduction for participants who agree to gas and/or electric utility company payment plans.

Target Market/Eligibility

This Program will be targeted to "high energy using" low-income households as a priority but will be made available to all eligible low-income customers on a statewide basis. Since electric and gas ratepayers are funding the Program, through the Societal Benefits Charge, first priority will be given to electric and gas heating households. The Program will also target "high-energy-use[5]" households enrolled in the Universal Service Fund program.

The Program is currently available to any household with income at or below 150% of the federal poverty guidelines. For 2004, the Program will be available to any household with an income at or below 175% of the federal poverty guidelines. Households that receive Lifeline and/or Pharmaceutical Assistance to the Aged and Disabled ("PAAD") are also eligible.

[5] Per NJBPU USF Order: Eligible USF participants with an annual energy burden over $1,800 will be referred to the Residential Low Income Program part of the New Jersey Clean Energy Program for free weatherization measures.

Program Offerings and Customer Incentives

All cost-effective efficiency measures will be installed in each home for the low-income participants. Measure priority will be based on cost-effectiveness and assessed on a site-specific basis. Spending allowance guidelines and measure priority on the individual homes will be based on energy use history. This ensures that customers with a higher energy burden receive proportionately higher spending allowances compared to lower energy users. For example, a customer who uses 7,500 kwh for heating and cooling would have a spending allowance guideline of $1,050; a customer who uses 3,000 kwh for heating and cooling would have a spending allowance guideline of $420 for energy saving measures. Spending allowance guidelines are intended to guide installation contractors, they are not imposed as caps on spending.

The measures to be considered for installation in each home include, but are not limited to: ENERGY STAR lighting products; hot water conservation measures (tank wraps, pipe wrap, tank temperature turn-down, and energy saving showerheads and aerators); replacement of inefficient refrigerators with an ENERGY STAR model; ENERGY STAR thermostats; insulation upgrades (attic, wall, basement, etc.); blower-door guided air sealing; duct sealing and repair; heating/cooling equipment maintenance, repair and/or replacement; other "custom" measures, which will include ENERGY STAR labeled products when available; and on a limited basis, health and safety measures.

Refrigerator replacement will be based on on-site monitoring of the existing unit. Consumption thresholds for cost-effective replacement vary according to size class. Any refrigerator with measured consumption above the threshold values is eligible for free replacement with a new ENERGY STAR model. These values and procedures will be updated periodically to reflect changes in refrigerator costs and/or efficiency.

The cost-effective installation of ENERGY STAR labeled lighting products will be based upon the wattage and the estimated average daily burn time for the existing lighting products.

Domestic hot water and other custom measures also will be installed according to Program guidelines for determining measure cost effectiveness.

In addition, eligible participants who are in arrears on their energy bills, and agree to treatment under this Program and a payment plan, will be eligible to receive arrearage reductions. The structure and details of the arrearage forgiveness plans vary by participating utility with a maximum arrearage reduction of $750.00 per eligible participant in a treated household.

Program Delivery

The Residential Low-Income Program will be delivered by the State's seven natural gas and electric utilities until a new program manager is selected and a detailed transition plan is developed that sets out specific dates for the transfer of program functions to the new program managers. Electric and gas energy saving measures and energy education services will be performed through the same Program delivery contractors so that eligible households receive both gas and electric efficiency measures simultaneously.

The Clean Energy Council recommended that the participation goal for the low-income program be increased from 6,500 to 8,000 and that additional contractors be hired to meet the additional production goals. The new program manager will be responsible for hiring additional contractors to meet the additional production goals.

This program has been preliminarily identified as a program for which program management should be put out to bid. Upon selection of the new program manager in 2004, a detailed transition plan needs to be developed that sets out specific milestones and timelines for the transition of the program from management by the seven utilities to the new program manager. The transition plan needs to address the transition of the various functions including outreach, sales, marketing, delivery including processing of applications, reporting and responsibility for commitments made prior to the transition.

2004 Program Activities

The initial set of program evaluation reports, regarding program tracking systems, affordability, participant survey and the process and comprehensiveness of program implementation, have been reviewed. The utilities will implement the recommendations that can be completed during the transition period. Recommendations that require longer time horizons to complete will not be initiated by the utilities.

Statewide Training Activities:

Training Video

One of the recommendations identified by Roper ASW in their evaluation of the Comfort Partners Program was the need for additional energy education contractor training. We suggest the development of a training video that will emphasize consistent delivery of audit procedures and energy education and is more cost effective than a one-time training for contractor staff.

The estimated budget for a training video is $37,000. This budget will support the uses of nationally recognized industry experts.

The end result will be a superior training tool that can be used for many years to come. The suggested approach for training the contractors has been tested and proven to work -- it is a learner and learning focused method as opposed to traditional customer education that is teacher and teaching focused and will consists of several components including:

- establishing a partnership approach between the educator and customer
- providing clear definition of the process and each partner's responsibilities
- gathering helpful household and energy use information
- managing hot water heating and thermostat use and other key technical topics
- meeting customers own self interests
- gaining action commitments
- repeating and reinforcing consistent messages
- connecting feedback and recognition

The video will be divided into a minimum of four 20-25 minute tapes which allows for an educator to focus more intently on each segment or for an educator to view one particular segment where skills need strengthening.

Technical Contractor Training
Conduct training with implementation contractor to review changes to specification manual and procedures. Estimated budget $15,000.

Quality Control Provisions

A minimum of 10 percent of all work done for a Comfort Partners utility must receive a 3rd party quality assurance inspection. The percentage of sites inspected for a given utility may exceed the minimum. Two inspection companies are used by the seven utilities. One inspector is used for joint delivery inspections of both gas and electric treatments. Documented Comfort Partners inspection procedures ensure consistent inspections from both contractors.

Areas addressed by the inspections include:

- Does the installation negatively affect occupant health/safety?
- Does the installation negatively affect the structural integrity or appearance of the home?
- Were the materials charged for installed?
- Do the materials meet the NJ Comfort Partners materials and installations specification manual and measure selection criteria?
- Was an important measure missed that would have saved energy or increased customer comfort?

Quality assurance contracts also provide feedback to the program managers to help determine future training needs and procedure revisions. Spreadsheets track overall statewide inspection result trends.

Program Budget

A detailed budget for this program for the first six months of 2004 is attached in Appendix B.

Program Goals and Minimum Requirements for Program Administration

Program goals and minimum requirements for program administration were not adopted for the 2003 programs. However, the November 1, 2002 filing of the Collaborative included proposed 2003 goals and minimum requirements for program administration that may prove informative in the development of 2004 goals and minimum requirements for program administration.

The following are the goals and minimum requirements for program administration that were proposed for 2003 but not adopted:

Proposed 2003 Goals

Participant targets for each utility for the low-income component in 2003 are displayed in the table below. The table figures are not additive. The total statewide participation is expected to be 6045 (6,500 with Senior Pilot), which is the sum of the electric participants (all households have electric service). The 5,069 gas participants are a subset of this total.

Electric				Gas			
PSE&G	JCP&L	Conectiv	RECO	PSE&G	NJNG	SJG	NUI-Etown
4,000	1500	525	20	3,400	733	300	636

The proposed 2003 statewide enrollment goal in the arrears reduction program was 3,400. Customers who participate in both the gas and electric utilities' arrears programs are counted by each utility. The utilities also had the following proposed individual targets for enrollment in their arrears reduction plans:

Electric				Gas			
PSE&G	JCP&L	Conectiv	RECO	PSE&G	NJNG	SJG	NUI-Etown
1,200	660	100	5	1,020	150	125	140

The on going program evaluation is also measuring other important performance indicators identified in the evaluation plan. These include the comprehensiveness of treatment of efficiency opportunities (or, conversely, magnitude of missed opportunities). The program savings goals in 2003 were to achieve 10% average savings on total electric use for electrically heated homes and 15% average savings on total gas use for gas heated homes. The savings calculations initially were to be based on energy savings protocols filed with the BPU for approval on July 9, 2001. It was anticipated that these protocols would be adjusted as baseline and impact evaluation data becomes available.

Proposed 2003 Minimum Requirements for Program Administration

- Collectively reach a minimum of 60% of both the participation and arrearage enrollment program goals.
- Complete on time at least three of the four activities in the 2003 plan.

2004 Goals and Objectives

As stated above, the proposed 2003 goals and minimum requirements for program administration were not approved. Also, marketing plans that were developed to support the achievement of these goals were suspended in 2003 and the utilities were not permitted to solicit proposals to hire additional delivery contractors while the Board considered changes to the administrative structure of the programs.

Further, it is anticipated that in 2004 the program management function will be transferred from the utilities to a program manager selected through a competitive process. The timing of the transfer to a new program manager is uncertain at this time.

The Clean Energy Council recommended that participation targets be modified from utility-based targets to county-based targets. The 2004 program plan recommended specific participation targets by county. The utilities considered these county-based targets in developing the utility specific budgets.

The following goals for the first six months of 2004 were developed based upon consideration of these factors and upon actual program participation levels in 2003:

The total statewide participation is expected to be 3,250, which is the sum of the electric participants (all households have electric service). The gas customer participation is expected to be 2,762 and is a subset of the 3,250 electric participants.

The program evaluation currently underway is measuring other important performance indicators identified in the evaluation plan. These include the comprehensiveness of treatment of efficiency opportunities (or, conversely, magnitude of missed opportunities). The program savings goals in 2003 were to achieve 10% average savings on total electric use for electrically heated homes and 15% average savings on total gas use for gas heated homes. The savings calculations initially were to be based on energy savings protocols filed with the BPU for approval on July 9, 2001. These energy savings protocols were subsequently modified after baseline data became available from the evaluators. It was anticipated that further adjustments to the protocols will be made when impact evaluation data becomes available.

Minimum Requirements for Program Administration

- Collectively reach a minimum of 60% of the six month participation targets.

Performance Indicators

The following criteria may be utilized to evaluate utility performance:

- Number of eligible households treated.
- Energy savings impact based upon modified energy savings protocols after the impact evaluation results are received.
- Impacts on energy affordability of program participants.
- Comprehensiveness of treatment of efficiency opportunities (or, conversely, magnitude of missed opportunities).
- Effective and efficient coordination of all available assistance resources.
- Improving the health and safety of treated eligible households.

C&I Energy Efficient Construction Program

"New Jersey SmartStart Buildings®"

Program Description

The C&I Energy Efficient Construction Program, which is marketed as *New Jersey SmartStart Buildings*, is the umbrella name for four individual programs for targeted market segments: 1) Commercial New Construction, 2) Commercial Retrofit, 3) Abbott Schools and 4) Non-Abbott Schools. The programs are designed to:

- Capture lost opportunities for energy efficiency savings that occur during customer-initiated construction events (i.e., when customers normally construct buildings or buy equipment).
- Achieve market transformation by helping customers, designers and specifiers to make energy efficient equipment specification, building /system design, lighting design, and commissioning standard parts of their business practices.
- Stimulate small commercial customer investments in energy efficiency measures.
- Help facilitate effective implementation of New Jersey's new commercial code and future upgrades to that code.

These programs have been designed to address key market barriers to efficient building construction and design on the part of developers, designers, engineers, and contractors including: unfamiliarity or uncertainty with energy efficient building technologies and designs; bias toward first cost versus operating costs; compressed time schedules for design and construction; aversion to perceived risk-taking despite the proven reliability of efficient technologies and designs; and incentive structures and priorities for engineers, designers and contractors which are at variance with efficiency considerations.

The programs employ a comprehensive set of offerings and strategies to address the market barriers noted above and to, subsequently, achieve market transformation in equipment specification, building/system design and lighting design. These include:

- Program emphasis on customer-initiated construction and equipment replacement events that are a normal part of their business practice.
- Coordinated and consistent marketing to commercial and industrial customers, especially large and centralized players, such as national/regional accounts, major developers, etc.
- Consistent efficiency and incentive levels for efficient electric and gas equipment and design practices to permanently raise efficiency levels.
- Prescriptive incentives for pre-identified efficiency equipment and custom measure incentives for more complex and aggressive measures to permanently raise the efficiency levels of standard equipment.

- Design support/technical assistance to developers and their design team for new construction and renovation projects to permanently raise the efficiency levels of design practices.
- Specialized technical assistance for small commercial customers and educational institutions.
- Technical support for newly enacted commercial energy code including training in energy code requirements.

Target Markets/Eligibility

Commercial, educational, governmental/institutional, industrial, and agricultural customers engaged in customer-initiated construction events including public schools construction, other new building construction within designated smart growth areas, renovations, remodeling, equipment replacement, and manufacturing process improvements. In addition, the program may be used to address economic development opportunities and transmission and distribution system constraints.

Program Offerings and Customer Incentives

The programs will include the following program offerings for the various market segments:

Core Incentives

- Prescriptive Efficiency Measure Rebates that provide fixed incentives for energy efficiency measures. Incentives are based on incremental costs (i.e., the additional cost above baseline equipment), in consideration of market barriers, changes in baselines over time and market transformation objectives. Eligible electric measures include chillers, lighting fixtures and controls, unitary HVAC, motors, variable frequency drives, ground source heat pumps and LED traffic signals. Eligible natural gas measures include gas cooling, furnaces, boilers and water heating equipment.
- Custom Measure Incentives for more complex and aggressive custom efficiency measures. Incentives are based on incremental equipment and labor costs, in consideration of market barriers, changes in baselines over time and market transformation objectives. Eligible electric and gas measures include lighting systems, HVAC systems, motor systems, large boiler systems, gas-engine driven chillers and other non-prescriptive measures proposed by the customer.
- Multiple Measure Incentives for the installation of multiple eligible gas and electric energy efficiency measures (i.e., two or more of the following equipment types – lighting equipment and controls, unitary HVAC, chillers, electric and gas space heating, gas water heating, motors, and/or variable speed drives). Incentives are based on the total equipment incentives but are not to exceed the smallest individual equipment incentive for the project.
- Technical Assistance and oversight to help customers evaluate energy efficiency options, utilize program offerings and services, and effectively use performance-contracted services. In addition, targeted technical assistance, and targeted incentives, will be provided to small commercial customers.

- Energy Code Technical Support, to assist customer and trade ally understanding of the requirements of the state's new commercial energy code, as well to build the technical foundations for possible future energy code upgrades (e.g., sharing of research results, program experience and technical support). These activities are designed to "lock-in" efficiency gains from the program and to lay the groundwork for future market transformation.

New Construction

- Incentives for new construction projects are available only for projects in State designated "Smart Growth" area (as defined as Planning Areas I and II and the Designated Centers using the "Policy Map of the NJ State Redevelopment and Redevelopment Plan")
- Design Incentives and Support, including building simulation, to architects and engineers to consider and use integrated design approaches that provide additional, synergistic energy savings. The design incentives cover a portion of the incremental cost for additional energy efficient design services over the base cost of building design.

Schools

- Incentives and Technical Support for Commissioning Services for qualified new K-12 public school construction of facilities greater than 50,000 square feet.
- Provide assistance to ensure that all schools take full advantage of existing program offerings and incentives, as well as technical assistance regarding the energy efficiency requirements of the LEED program including commissioning for school facilities greater than 50,000 square feet.
- No incentives are currently provided to offset costs associated with LEEDs registration. The potential inclusion of incentives to offset costs associated with LEEDs registration will be discussed further with the School Construction Corporation and/or the new program manager and any proposed revisions to the program will be reviewed by the Clean Energy Council Energy.
- Public School (K-12) new construction projects are eligible for new construction incentives throughout the state and are not limited to State designated "Smart Growth" areas.
- A school's web page "Smart Start Schools" was developed and provides specific information related to schools construction including the appropriate links for researching additional information and organizations.

Financial incentives are provided for: a) the technical studies on a cost shared basis and b) for qualified equipment.

Retrofit

- *Chiller Optimization*, designed to (a) capture potential additional savings available at the time of a chiller replacement or conversion to a new refrigerant, and (b) help to lay the foundation for market-based comprehensive treatment of major HVAC replacement projects. By examining ways to optimize the efficiency

of the chiller in relation to its distribution systems (pumps, fans, ducts, pipes, controls, etc.) while simultaneously reducing other building cooling loads (such as lighting), it is often possible to reduce the size (and thus cost and peak demand) of the replacement chiller. Additional benefits can include a better performing building and improved savings from the ancillary efficiency measures.

Targeted to C&I customers with large chiller plants (of 500 tons or more) that are in line for replacement, conversion, or addition of chiller capacity program. Activities include: Technical Assistance for studies to identify potential savings and incentives for chiller replacements, incentives for lighting system improvements, and auxiliary enhancements, such as fans, pumps, motors, ducts, pipes, controls etc.

- *Lighting Remodeling Design*, provides specialized marketing, standardized technical assistance tools, and training to help contractors design, recommend and install energy efficient lighting systems. Explicitly designed to transform lighting design practices during remodeling through training, using a three tiered training approach beginning with information sessions to introduce Design Lighting concepts and techniques to contractor and specifiers. The next tier recruits attendees to participate in roundtable training discussions to explore case study design guides and the third tier recruits participants to engage in hands on demonstration projects at customer locations.
- *Compressed Air*, to capture significant energy savings from compressed air system optimization in industrial facilities containing significant compressed air systems (over 100 HP). These customers encompass many key New Jersey industries including plastics, chemicals, paper products, high technology, and pharmaceuticals. The focus is on the efficiency of all compressor system elements, including compressors, auxiliaries, controls, distribution, end-use, and operation and maintenance.

  Financial incentives are provided for: a) the technical studies on a cost shared basis and b) for qualified equipment. As customer and contractor awareness and market demand build, the Program will adjust incentives for studies to maintain only levels necessary to produce desired levels of market response.

- *Commercial and Industrial Building Operation & Maintenance (O&M) Training*, continuation of an ongoing program for building operation training and certification in resource efficient O&M practices.

<u>Regional and National Initiatives</u>

- The utilities will continue to support efforts to upgrade federal appliance efficiency standards and state building codes. Activities include technical support, dissemination of information, sponsorship of conferences/workshops on codes and standards, tracking of activities and monitoring developments, and review and modification of program designs to integrate changes to the standards and codes.

? The utilities will continue to support regional efforts that promote energy efficiency and market transformation for targeted equipment markets. These efforts include participation in the regional, MotorUp program and Cool Choice program.

Incentives

The table below lists existing 2003 incentives and, where noted, changes that will take place in 2004. The statewide incentives presented in the tables below vary by size, technology and efficiency.

Technology Classification	**Current Incentive**	**2004 Incentive**
Design Support Incentives:		
Pre-design planning session -	$1,000.00	$1,000.00
Design simulation and screening -	$5,000.00 or more depending on the size of the building or; service may be provided by utility	$5,000.00 or more depending on the size of the building or; service may be provided by utility
Incorporation of energy-efficiency measures into the Final Design-	$5,000.00 depending on the measures included	$5,000.00 depending on the measures included
Custom Measure Incentives:		
Measures not covered by the prescriptive incentive tables -	Generally, up to 80% of eligible qualifying measure's incremental cost or a buy down to a 1.5-year payback, whichever is less. To be eligible for incentives, these projects must first pass several 'cost-effectiveness' criteria.	Generally, up to 80% of eligible qualifying measure's incremental cost or a buy down to a 1.5-year payback, whichever is less. To be eligible for incentives, these projects must first pass several 'cost-effectiveness' criteria.
Qualifying Equipment Incentives (no measure incentive shall exceed the non-installed cost of the measure):		
Electric Chillers:		
Water Cooled Chillers	$12 - $170 per ton depending on size and efficiency	$12 - $170 per ton depending on size and efficiency
Air Cooled Chillers	$8 - $52 per ton depending on size and efficiency	$8 - $52 per ton depending on size and efficiency
Natural Gas Chillers:		
Gas Absorption Chillers –	1.1 full load COP	1.1 full or part load COP
< 100 tons	Up to $185 per ton	$185 per ton

Technology Classification	Current Incentive	2004 Incentive
100 to 400 tons	Up to $230 per ton	$230 per ton
> 400 tons	Up to $450 per ton	$450 per ton
Gas Engine Driven Chillers –	Treated under Custom measure path (1.1 full load COP)	Treated under Custom measure path (1.1 full or part load COP)
Desiccant Systems -	$1.00 per cfm (gas or electric)	$1.00 per cfm (gas or electric)
Unitary HVAC Systems -		
Unitary AC and Split Systems	Follows the Regional Cool Choice Program Incentive Schedule (See Appendix A)	Follows the Regional Cool Choice Program Incentive Schedule (See Appendix A)
Air to Air Heat Pumps -	Follows the Regional Cool Choice Program Incentive Schedule (See Appendix A)	Follows the Regional Cool Choice Program Incentive Schedule (See Appendix A)
Water Source Heat Pumps -	Follows the Regional Cool Choice Program Incentive Schedule (See Appendix A)	Follows the Regional Cool Choice Program Incentive Schedule (See Appendix A)
Packaged Terminal AC & HP	$65 per ton	$65 per ton
Dual enthalpy Economizers -	Follows the Regional Cool Choice Program Incentive Schedule (See Appendix A)	Follows the Regional Cool Choice Program Incentive Schedule (See Appendix A)
Central DX AC Systems – => 9.5 EER	$40 - $72 per ton	>30 to 63 tons: $40 per ton > 63 tons: $72 per ton
Ground Source Heat Pumps:		
Open Loop & Closed Loop – => 16 EER	Up to $580 per ton	$370 per ton: Energy Star rated equipment only
Gas Fired Boilers:		
<300MBH => 85% AFUE	Up to $300 per unit	$2.00 per MBH but not less than $300 per unit
300 MBH – 1500 MBH => 85% AFUE hot water boilers => 84% AFUE steam boilers	Up to $1.75 per mbh	$1.75 per MBH

Technology Classification	Current Incentive	2004 Incentive
>1500 MBH – 4000 MBH => 84% AFUE for hot water boilers => 83% AFUE for steam boilers	Treated under Custom Measure Path	$1.00 per MBH
> 4000 MBH	Treated under Custom Measure Path	Treated under Custom Measure Path
Gas Furnaces (=> 90% AFUE)	Up to $300 per furnace	$300 per furnace
Variable Frequency Drives (HVAC):		
Variable Air Volume (add on to existing HVAC systems only)	Up to $90-$210 per hp	$65 - $155 per hp
Chilled Water Pumps -	Up to $60 per hp	$60 per hp
Gas Fired Water Heating:		
<= 50 gallons =>.62 energy factor	Up to $50 per water heater	$50 per water heater
>50 Gallons; <300 MBH => 85% AFUE	Treated under Custom measure path	$2.00 per MBH, but not less than $50/unit
300mbh – 1500 MBH => 85 % AFUE	Treated under Custom measure path	$1.75 per MBH
>1500 MBH – 4000 MBH => 84% AFUE	Treated under Custom measure path	$1.00 per MBH
> 4000 MBH	Treated under Custom measure path	Treated under Custom measure path
Gas Fired Water Booster Heaters:		
=< 100 MBH	Up to $17 per MBH	$17 per MBH
> 100 MBH	Up to $35 per MBH	$35 per MBH
Premium Efficiency Motors:		
Three phase motors	Follows the Regional MotorUp Program Incentive Schedule (See Appendix A)	Follows the Regional MotorUp Program Incentive Schedule (See Appendix A)

Prescriptive Lighting:		
T-5 and T-8 lamps with electronic ballast	Up to $40 per fixture ($10-$20 for retrofit, $40 for new construction)	$20 per fixture for existing facilities with connected load <= 75 kW $10 per fixture for existing facilities <= 50,000 sq. ft with connected load > 75 kW No incentive for new construction or complete renovation
LED Exit Signs* - (New Fixtures Only)	Up to $20 per fixture	$20 per fixture
Hard-wired compact fluorescent surface mounted fixtures* - (New Fixtures Only). Must be pin based technology with THD of <33% and BF>0.9		
1 lamp fixture	Up to $35 per 1 lamp fixture	$25 per 1 lamp fixture
2 lamp fixture	Up to $40 per 2 or more lamp fixture	$30 per 2 or more lamp fixture
Hard-wired compact fluorescent recessed fixtures*- (New Fixtures Only). Must be pin based technology with THD of <33% and BF>0.9		
1 lamp fixture	Up to $35 per 1 lamp fixture	$25 per 1 lamp fixture
2 or more lamp fixture	Up to $40 per 2 lamp or more fixture	$30 per 2 or more lamp fixture
Metal Halide w/ pulse start ballast, for fixtures > 150 watts	Up to $50 per fixture, excludes parking lot lighting	$50 per fixture, includes parking lot lighting
T-5 and T-8 High Bay Fixtures, minimum mounting height of 18 ft. **	None	$75 per fixture
LED Traffic Signal lamps (conversion of existing intersections only)		
8' Lamp	Up to $35 per 8" lamp (red & green only)	$20 per 8" lamp (red & green only)
12'' Lamp	Up to $50 per 12" lamp (red & green only)	$35 per 12" lamp (red & green only)

LED Pedestrian Signal lamps (conversion of existing intersections only)	Up to $20 per fixture	$20 per fixture
Lighting Controls:		
Occupancy Sensors (Turning fixtures off in Existing facilities only)		
Wall mounted	Up to $30 per control	$20 per control
Remote mounted (e.g., ceiling)	Up to $75 per control	$35 per control
Day lighting Dimmers – All facilities		
Fluorescent Fixtures	Up to $40 per ballast controlled	$25 per fixture controlled
HID or Fluorescent Hi-Bay controls	Up to $75 per fixture controlled (HID only)	$75 per fixture controlled (HID or Fluorescent Hi-Bay)
Hi-Low Controls – All facilities:		
Fluorescent Fixtures	Up to $40 per ballast controlled	$25 per fixture controlled
HID or Fluorescent Hi-Bay	$75 per fixture controlled (HID only)	$75 per fixture controlled (HID or Fluorescent Hi-Bay)
Performance Based Lighting		
Performance Based Lighting incentives for indoor and outdoor installations (attached to building) -New construction and Major Renovation	Up to $1.00 per watt-per-square foot below baseline which is 5% below (more efficient) code; incentive cap up to $30/Fixture	$1.00 per watt-per-square foot below baseline which is 20% below (more efficient) code; incentive cap $30/Fixture
Performance Based Lighting incentives for indoor/outdoor installations (attached to building) - Existing construction	Up to $1.00 per watt-per-square foot below baseline which is 5% below (more efficient) code; incentive cap up to $30/Fixture	$1.00 per watt-per-square foot below baseline which is 10% below (more efficient) code; incentive cap $30/Fixture

Multiple Measure Bonus		
	10% of the total equipment incentives for the subject project, but not to exceed the smallest individual equipment incentive for the project.	10% of the total equipment incentives for the subject project, but not to exceed the smallest individual equipment incentive for the project.

* Available to facilities of small commercial customers (existing facilities; <= 75 kw average metered demand for a recent 12 month period, new construction or complete renovations; <= 10,000 square feet)
** Certain conditions may apply, (check with the utility for specific application)

The incentives identified above may be modified with the approval of the Office of Clean Energy.

The new rebate levels and program elements will become effective on January 1, 2004 or as soon thereafter as feasible.

Program Delivery

The C&I Energy Efficient Construction program will be delivered by the State's seven natural gas and electric utilities until a new program manager is selected and a detailed transition plan is developed that sets out specific dates for the transfer of program functions to the new program managers. The program will be offered on a consistent program design and implementation basis to ensure consistency across the state.

Program management for the Abbott School component of the program is slated to be transferred to the School Construction Corporation (SCC) and/or a third party program manager. The utilities will deliver this portion of the program until the Office of Clean Energy reaches an agreement with the SCC for program management services and a detailed transition plan is developed that sets out specific dates for the transfer of program functions to the SCC.

As new technologies are introduced and prices for measures change, sometimes in response to program offerings, program managers need to continuously monitor technologies and costs and adjust program incentives accordingly. The utilities will propose adjustments to these offerings based on program experience, the results of any evaluations, program and market studies as well as other state/regional market research, and current pilot/demonstration projects.

The utilities will continue to maintain a Standing Technical Committee, which will make recommendations to the NJ BPU Office of Clean Energy regarding updates to the program rules and the eligibility requirements governing measure eligibility and technical requirements. Changes to the program will be posted and regularly updated on the New

Jersey Smart Start Building web site and communicated to Trade Allies and program participants via the web site.

A new program aimed at the C&I market, the C&I Pay for Performance program, was recently approved by the BPU for implementation in 2004. A determination needs to be made whether this new program will be designed in coordination with or independent of the existing program, i.e. will it compete with the existing program or be designed to compliment it by targeting markets not adequately addressed by the existing program. Also, the BPU has recently initiated several new programs that offer businesses, schools and municipalities low interest financing for energy efficiency and renewable energy. Efforts should be made to coordinate marketing and sales efforts of both the existing program and these new programs so that eligible customers become aware of the availability of both incentives under the existing program and low cost financing under the new programs. While the Office of Clean Energy will have the responsibility for developing these new programs, the utilities will provide assistance to insure consistent program delivery during the transition phase.

This program has been preliminarily identified as a program for which program management should be put out to bid. Upon selection of the new program manager in 2004, a detailed transition plan needs to be developed that sets out specific milestones and timelines for the transition of the program from management by the seven utilities to the new program manager. The transition plan needs to address the transition of the various functions including outreach, sales, marketing, delivery including processing of applications, reporting and responsibility for commitments made prior to the transition.

Quality Control Provisions

Documented policies and procedures provide proper guidelines to ensure consistency in the processing and quality control for all C&I program participants. All applications are reviewed upon receipt to verify adherence to eligibility requirements. Applicant eligibility information is verified, along with all technical information in support of energy efficient measure qualification and incentive calculation. Applicant supplied information and program administrator performed incentive calculations are entered into the database, and files are created for all documents and ongoing project correspondence.

A minimum of 10% of all rebate applications are selected for a quality assurance review and pre-installation and post-installation inspection by a third party inspector contracted by each of the electric utilities. Inspections include a site visit to verify customer eligibility and energy efficient measure technical specifications which results in a verification of the incentive calculation. A field inspection report is prepared and submitted to the utility.

Program Budget

A detailed budget for this program for the first six months of 2004 is attached in Appendix B.

Program Goals and Minimum Requirements for Program Administration

Program goals and minimum requirements for program administration were not adopted for the 2003 programs. However, the November 1, 2002 filing of the Collaborative included proposed 2003 goals and minimum requirements for program administration that may prove informative in the development of 2004 goals and minimum requirements for program administration.

The following are the goals and minimum requirements for program administration that were proposed for 2003 but not adopted:

Proposed 2003 Goals

- Collectively process through completion at least 1902 total New Jersey SmartStart Buildings Program applications.
- Collectively process through completion at least 184 Multiple Measure Projects.
- Collectively process through completion or commitment at least 42 Comprehensive projects.
- Collectively achieve the cited participation levels for the following program paths:
  - Tier 2 unitary HVAC installations completed: 415
  - Chiller optimization projects completed or committed: 8
- Collectively achieve 12 lighting remodel projects.
- Collectively achieve the following electric energy savings: 85,500 Megawatt-hours.
- Collectively achieve the following gas utility energy savings: 380,248 Therms.
- Complete 10 compressed air audits/studies.
- Complete 8 compressed air projects.

Proposed 2003 Minimum Requirements for Program Administration

- Collectively implement all elements of the program in a consistent and timely manner across the entire state.
- Collectively meet at least 50% of the utilities' agreed-upon statewide MWh savings and Therm goals.
- Continued support for upgrades to federal efficiency standards and state building codes.
- Individually achieve the minimum requirements cited below in the following program elements:

	PS-E	GPU	Conectiv	RECO	PS-G	E-Town	SJG	NJNG
SSB Program Applications: **	300	117	67	40	100	14	11	10
Comprehensive Projects:*	8	9	5	0	Incl in electric	1	1	1
Multiple Measure Projects**	38	34	20	0	Incl in electric	2	2	1
Tier-2 HVAC units**	120	65	23	0	-	-	-	-
Chiller optimization projects:*	2	2	1	0				

*Includes completed and committed projects that are submitted on NJSSB forms only.
**Completed projects.

2004 Goals and Objectives

As stated above, the proposed 2003 goals and minimum requirements for program administration were not approved. Also, marketing plans that were developed to support the achievement of these goals were suspended in 2003 while the Board considered changes to the administrative structure of the programs. Without marketing efforts to support the goals the utilities are in a reactive mode with regard to the number of applications processed, that is, they have minimal ability to stimulate additional participation in the program.

Further, it is anticipated that in 2004 the program management function will be transferred from the utilities to a program manager selected through a competitive process. The timing of the transfer to a new program manager is uncertain at this time.

The goals related to the number of rebates processed tend to be seasonal in nature with many applications for cooling equipment rebates received prior to or during the summer months and many applications for heating equipment received prior to or during the winter months. The number of rebates processed also tends to be impacted by factors outside of the control of the utilities such as general market conditions and weather.

The following goals for the first six months of 2004 were developed based upon consideration of these factors and upon actual program participation levels in 2003:

- Collectively process through completion at least 1,270 total New Jersey SmartStart Buildings Program applications.
- Collectively achieve the cited participation levels for the following program paths:
  - Tier 2 unitary HVAC installations completed: 360
- Collectively achieve the following electric energy savings: 44,500 Megawatt-hours.
- Collectively achieve the following gas utility energy savings: 156,000 Therms.
- Complete 5 compressed air audits/studies.
- Complete 5 compressed air projects.

Minimum Requirements for Program Administration

- Collectively implement all elements of the program in a consistent and timely manner across the entire state.
- Collectively meet at least 50% of the utilities' agreed-upon statewide MWh savings and Therm goals.
- Continued support for upgrades to federal efficiency standards and state building codes.

*Includes completed and committed projects that are submitted on NJSSB forms only.

**Completed projects.

Performance Indicators

The following criteria will be used to judge performance based on program tracking and evaluation results:

- Additional specific actions to transform markets.
- Market share improvements for energy efficient equipment and practices.
- Market awareness.
- Number of comprehensive/multi-measure projects.
- Indicators of transformation of specific markets for energy efficient equipment and practices.

Appliance Cycling Program

Program Description

New Jersey's Appliance Cycling Programs have been in place for over ten years and have grown to include nearly 240,000 remotely controlled appliances that can deliver more than 200 MW of system load relief. The program has been used to provide both broad relief at times of system peak and localized relief on targeted T&D circuits. By using radio-activated relays, system operations selectively cycle primarily air conditioning equipment through a variety of operating strategies, which are designed to optimize system load and lower the peak demand while minimizing the impact on the customer. The short duration of such load cycling periods (generally fifteen (15) minutes of each half-hour when activated) minimizes the impact of the cycling on the customer's comfort.

Conectiv has over 20,400 active participants in the program controlling 25,436 appliances (central air conditioners, heat pumps, water heaters, and motors). PSE&G has installed radio receiver switches on more than 140,000 central air conditioners, heat pumps (or in the thermostats which control them) and qualifying water heaters (when accompanied by a central air conditioner or heat pump) since 1990. JCP&L has, since 1991, installed over 66,000 outdoor radio receiver switches and more than 18,000 thermostat-based radio receivers.

Over the past several years each of these utility programs has been in an operations and maintenance mode meaning that the existing number of customers in the program was maintained, with new customers replacing those that drop out of the program, but the total number of customers in the program has remained relatively constant.

The BPU has recently directed that the funding for this program be transferred from the Clean Energy Program to BGS. This will occur in June of 2004. The BPU has also directed OCE staff to work with the utilities regarding the development of a plan to expand the program, particularly in areas that have recently experienced local distribution problems such as the barrier islands.

Target Market/Eligibility

The PSE&G program targets maintaining existing residential participants. The JCP&L program targets maintaining existing residential participants in the JCP&L southern area. The Conectiv program targets maintaining existing residential and small commercial participants.

Eligible Measures

Central Air Conditioners, heat pumps, electric water heaters, and motors (Conectiv only)

Customer Incentives

Utility	Current Incentive
PSE&G	$6.00 per month (June-September)
JCP&L	? New Participants receive a programmable thermostat/controller as their incentive ? Customers with an outdoor A/C control device receive $24.00 per each cooling season ? Customers receive an additional $6.00 incentive payment for controlling electric water heaters.
Conectiv	? Residential customers receive $1.50 credit per appliance, per month (June-September) ? C/I participants receive $1.50 credit for each kW controlled, per month (June-September). ? Participants also receive an additional $1.50 per cycling event

Program Delivery

There is no joint or coordinated delivery of this program. Each utility individually markets and delivers their specific program. This program has been preliminarily identified for continued program management by the utilities.

Program Implementation Activities

? Develop 2004 incentive levels/ specifically, consider reducing the monthly bill credit from $6 to $4 (reduced from $24 to $16 per year) for existing PSE&G and JCP&L participants with outdoor control units.
? Maintaining the existing level of controlled load
? Piloting new technologies for controlling customer loads (this pilot will be funded from the C&I Special Studies budget)
? Coordinate with other NJ Clean Energy Programs
? Initiating a direct load control pilot for small C&I customers in transmission constrained areas.
? Consider providing all new participants a thermostat/controller as their incentive.
? Institute a program to identify and replace missing/inoperable controllers

Quality Control Provisions

PJM requires that load cycling programs be evaluated periodically to insure the claimed load reductions are delivered. Since 1991, JCP&L and PSE&G have performed several studies and projects to ensure efficiency and effectiveness of the appliance cycling program. This includes a PJM required impact study, propagation surveys, and other field and database verification activities.

The evaluation includes the testing of the signals and switches. The evaluation determines a kW reduction per switch installed factor. The utilities then multiply this factor by the number of switches installed to determine the overall load reduction that occurs when the switches are activated. Conectiv has not activated this program in the last several years and has not performed the impact studies required by PJM.

JCP&L's and PSE&G's dedicated Call Center representatives are trained in troubleshooting, resolving customer issues efficiently and forwarding installation, removal and service requests to the scheduling department. Program field staff responsibilities include: pre-installation evaluation and testing of equipment, explanation of procedures to customers, installation of SST, post testing of equipment and operation, customer education of use of SST, both customer and installer signatures on contract agreement and work order, and any necessary bench testing of hardware. In addition, JCP&L conducts quarterly contractor visits.

Program Budget

A detailed budget for this program for the first five months of 2004 is attached in Appendix B. Starting on June 1, 2004, this program will be funded from BGS charges and no longer supported by the Clean Energy Program funds.

Program Goals and Minimum Requirements for Program Administration

No goals or minimum requirements for program administration were proposed for this program for 2003. The following are the program goals for 2004:

- Maintain the existing number of customers in the program
- Support evaluation efforts to determine whether the program should be expanded or modified
- Implement activities identified in the December 2 BPU decision (upon receipt of order)

Performance Indicators

- Number of customers enrolled
- kW of load reduction

Appendix A: Program Marketing Plans

The following are the statewide and individual utility program marketing plans for the first six months of 2004.

Appendix B: Program Budgets

The following are the program budgets for the first six months of 2004: